

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: "ROBERT W DOWNS, WA5CAB" <103012.2130@compuserve.com>  
Subject: AN/USM-32  
Message-ID: <951112001527\_103012.2130\_GHU116-1@CompuServe.COM>

Larry & the net,

The AN/USM-32, aka Dumont 301, is a 4 MC scope, using a 3WP1 CRT. I've never used one but manuals are TM 11-5123 and NAVSHIPS 92257, so they must have been procured for both the Army and Navy. I copied the NAVSHIPS manual for someone earlier this year. Fair Radio used to sell the AC supplies. I bought a couple to use in BC-221's, but they were too wide, and then I discovered the RA-133. >From the manual, it looks like a fairly decent 'scope, better than the OS-8, anyway, but then what isn't?

The TDA-2, as Henry said, is a distortion analyzer, used to measure various kinds of bias and distortion on Teletype (my keyboard doesn't have an 'R' in a circle) signals (and Kleinschmidt also, I guess - HI). Similar military models are TS-927 & TS-1060. I have a TDA-2 <somewhere> and manual, but haven't used it in years. If I ever get around to playing with my Model 15 vintage stuff, maybe I'll need it again.

73, Robert Downs, WA5CAB

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Sheldon Wheaton <swheaton@sky.net>  
Subject: Re: atwater kent radio  
Message-ID: <199511112348.RAA10562@solar.sky.net>

At 07:47 PM 11/9/95 -0600, brian j. bartter wrote:  
>i have an atwater kent radio, model 40. it has a power supply encased in  
>"black tar". I have heard of "depotting compound" but i don't know where  
>to find it or if it will work on this power supply.

I had a similar problem with an Atwater Kent model 55 (in the Kiel table) power transformer. This might not work for every case, but in this situation, it sure beats the mess of "depotting compounds". The transformer had a partial short on the primary, and was pulling about 200 watts without any load on the output, so I ran a cord out the door to the patio (lived in an apartment at the time), plugged it in, and let it cook itself out! After a few minutes the tar was bubbling, I unplugged it, went out and picked it up with some pliers, turned it over and out fell the transformer. The replacement transformer fit nicely inside the can with room to spare.

\*\*\*\*\*  
Sheldon Wheaton KC0CW (ex: KA0DRH,WN0DPE) licensed since 1971  
email: swheaton@sky.net Amatuer Radio Packet: KC0CW@NW0I.NEKS.KS.USA

Collector of Military and Commercial communications radio equipment  
\*\*\*\*\*

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: jproc@worldlinx.com  
Subject: BA Sightings  
Message-ID: <Chameleon.4.01.2.951111055717.jproc@>

Dear BA's,

Attended the Newmarket Hamfest in Newmarket Ont. today. There were definitely a few bargains:

- 1) Mint condition BC348 receiver - asking \$100. Reduced to \$85 but didn't sell.
- 2) Tektronix 535A oscilloscope - Asking \$60 and it was in working condition supplied with one probe and a plug in! It sold late late in the show.
- 3) GRC9 receiver - \$100 . Didn't check later to see if it sold.
- 4) R1155 receiver (used in Lancaster bombers in WW2). Mint condition. Asking \$150. Did not sell.
- 5) Globe Scout (?) transmitter - \$30 .
- 6) RME Receiver - unable to identify model . Asking \$70 unsold.
- 7) What followed me home: unmodified BC 453B receiver (190 to 500 Khz)  
Paid \$35. Maybe too much, but its rare around these parts.  
  
unmodified ARC5 transmitter (3 to 4 Mhz range)  
Paid \$10.

All prices are in Canadian dollars. Apply a 38% discount to obtain equivalent prices in US funds.

Regards,

~~~~~  
Jerry Proc VE3FAB  
E-mail: jproc@worldlinx.com  
Radio Restoration Volunteer  
HMCS Haida, Toronto Ontario  
~~~~~

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Sheldon Wheaton <swheaton@sky.net>  
Subject: Barry Ornitz address?  
Message-ID: <199511121736.LAA10501@solar.sky.net>

Anyone know how to contact Barry Ornitz lately? (including Barry).  
My mail to him has been bouncing all over "the net". Can't go  
long without our resident expert Chemical Engineer!  
thanks, Sheldon KC0CW swheaton@sky.net

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: bill@texan.frco.com (William Hawkins)  
Subject: Corroded rheostats  
Message-ID: <9511111757.AA03181@texan.frco.com>

Opened up a 30 year old Acoustic Research AR3 speaker that had  
no high frequency response. Found that both of the rheostats  
used to control the level of the tweeters had lots of blue  
crystals in them. Washing them off revealed that the 12 ohm  
wire element was fine, but the wiper was gone. There was a  
rectangular hole in the (phosphor bronze?) wiper spring where  
it should have been. The other end of the spring rode on a  
disk in the center, rivited to a contact on the other side.  
There was a little bit of gold plating left on the rivet, the  
rest was corroded copper.

The thing was inside a sealed speaker cabinet (AR3 is an  
infinite baffle) with no exposure to salt water spray. My  
guess is a faulty gold plating process. Anybody else seen  
anything like that?

Acoustic Research is still in business, so I bought replacement  
parts. Can't wait to see if they are NOS parts that have also  
corroded.

Bill Hawkins bill@bvc.frco.com 612 895-2085 Minneapolis, MN USA

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: "William C. Robbins" <billrobb@serv01.net-link.net>

Subject: FS: DX-60B Parts

Message-ID: <199511120033.TAA29805@serv01.net-link.net>

I am parting out a DX-60B. No transformer. Let me know what you need.

Bill.

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995

From: nielw@ix.netcom.com (Niel Wiegand)

Subject: Re: Ham Mags Evals of Boatanchors

Message-ID: <19951112252.0AA18924@ix11.ix.netcom.com>

You wrote:

>

>Looking for info regarding the specific issues of QST, 73, etc., which

>evaluated the most popular boatanchor receivers. I've not been able  
>to

>locate an index for these magazines from the late 40s and 50s.

>73 de Terry//KC4YTF//pridgent@pinn.net

>

>

>

>

>

Terry,

I bought a diskette based ham radio magazine index last year. It includes indexes of all issues of CQ, 73, Ham Radio and QST since 1945 with a fast search program.

I can key in "National" and immediately see which pieces of National gear has been written up since 1945 and where to find the article.

It is called FBT0 (from Beverage to Oscar) and is available from Didah Publishing, PO Box 7368 Nashua, NH 03060. 1-603-878-3628. I think I paid around \$60.

73, Niel - WA5VLZ

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995

From: nielw@ix.netcom.com (Niel Wiegand)

Subject: Re: Ham Mags Evals of Boatanchors

Message-ID: <199511121416.GAA18197@ix12.ix.netcom.com>

You wrote:

>

>Niel, when you say diskette, do you mean CD-ROM or 3-1/2"

>Thanks.

>Dave, W3BJZ

>

Dave,

FBT0 is available on either 3.5" or 5.25" floppys. Also, looking at my manual it looks like the price for the "Master Archive" or complete index may be closer to \$80. You'll need to call Didah Publishing to get the current price. The full index plus search program requires 3.2MB of hard disk space.

73, Niel - WA5VLZ

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995

From: "Steve Hose" <NUHOSE@befac.indstate.edu>

Subject: Re: More BAs in London

Message-ID: <2EA9CFF05F7@befac.indstate.edu>

To All Interested,

The Royal Corps of Signals Museum has just recently opened...I have just received a brochure from the Royal Signal Amateur Radio Society and have not been there myself...according to the brochure, the museum is clearly sign posted off the B3082 Blandford to Wimborne Road...tele 0258 482248

Also of great interest....I was at Dover this May and went through the Hell Fire exhibit...this was the area carved out of lime stone for use during the invasion (WWII)....some old wireless and "twisted pair" equipment left...the nuclear war section (several layers below) has been declassified several years ago and is due to be opened to the public late this year.

FROM:

Steve KD1DT

ARRL LM

AMSAT LM-357

RSARS

RSGB

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NUHOSE@befac.indstate.edu                      ||  
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   (o|o)                      Terre Haute, IN  
-----oo00-( )-00oo-----

Jack the Cat

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Lrware@aol.com  
Subject: oil filled caps from old BA's  
Message-ID: <951111190012\_19663076@mail02.mail.aol.com>

Gentlemen:

While working on my RBL-3 this afternoon, I decided to "restore" one of the old can type power supply caps by taking it apart and installing a modern replacement inside the old can. This was a 4mfd 600v can before. Now it's a minor mess because it was oil filled. My question is this: Was the oil used in such old caps toxic? ie loaded with PCB's?

If thats the case; I now own a bag full of hazardous materials. Even more important, how much danger is really in handling this stuff? Didn't people work with this for years before anyone knew PCB's caused cancer?

Awaiting your advice while scrubbing throughly...

Larry Ware  
lrware@aol.com

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: bcutter@teal.csn.net (Bob Cutter)  
Subject: OS-8B/U Scope  
Message-ID: <199511120220.TAA20467@lynx.csn.net>

I have one of the above that I used for years as a RTTY tuning scope. The tube seems gone. Is it worth trying to replace to use as a general purpose scope?

73, Bob KI0G  
END

Bob Cutter, .....Glenwood Springs, CO

KI0G

bcutter@teal.csn.net

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: merrigan@ee.ualberta.ca (Shaun P. Merrigan)  
Subject: Parts Suppliers, Mail Order  
Message-ID: <199511112152.PAA20916@uro.theporch.com>

One of the most common parts we replace in our BA's is capacitors. The latest Mouser (1-800-346-6873) catalog has an expanded section of all types of capacitors including 450v radial and axial electrolytics, a huge selection of disc ceramics (up to 10 kV) with several different types of temp compensation, as well as silver mica, polyester. Most of these are available in 300/400/500 volt ratings as well. They also have quantity discount prices, which is great if you are doing a couple of SP-600's !! :-)

I have used Mouser many times for BA and non-BA projects, and I have always had good service. The catalog seems to be free, and is updated every quarter.

shaun  
Shaun P. Merrigan  
merrigan@nyquist.ee.ualberta.ca

"I am an old man now, and when I die and go to Heaven there are two matters on which I hope for enlightenment. One is quantum electrodynamics, and the other is the turbulent motion of fluids. And about the former I am rather optimistic."  
-Sir Horace Lamb, 1932

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Steve Ellington <n41q@iglou.com>  
Subject: Re: Parts Suppliers, Mail Order  
Message-ID: <Pine.SOL.3.91.951111170244.29087A-1000000@iglou2>

>  
> I have used Mouser many times for BA and non-BA projects, and I have  
> always had good service. The catalog seems to be free, and is updated  
> every quarter.

I want to second that statement. Mouser will even provide technical help on their 800 number. Orders have always been shipped the same day to me and there is no Minimum order!

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: wkleros@csn.net (Bill Kleronomos)  
Subject: Stuff F.S.  
Message-ID: <199511111933.AA15568@ns-1.csn.net>

#### MANUALS & DOCS

Repro manual for National NC-173 \$2  
RCA "RCA Photosensitive Devices & Cathode Ray Tubes" (10-60), 36 pg \$2  
Army TM11-680 Teletypewriter Circuits and Equipment (10-47) \$5  
Army TM11-2215 Teletypewriters TT-5/FG and TT-6/FG 388 pages covers TT  
Model 15 (6-51) \$8

#### MISC CHEAP STUFF

Shure desktop amplified dynamic mic- square-head beige & gray (from GE  
Master II base Stn) \$5  
Good carbon mic replacement for BA transmitters.

Head for classic Shure Unidyne 555 mic. Pretty cosmetic shape,  
unfortunately, someone put  
a non-stock dynamic cartridge in it..... \$5

Zenith Bicentennial commemorative tube caddy (1976 vintage, of course). White  
background with revolutionary war soldier and drummer artwork. Not beat up.  
Tubes not included..... \$40

U ship or pick up.

-Bill  
wkleros@csn.net

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
Subject: SX-43  
Message-ID: <Pine.ULT.3.91.951112102257.15092A-1000000@admin.aurora.edu>



I had a fairly rotten week at work this week and was certainly glad when Friday rolled around. I was cruising thru my E-mail when I saw someone offering a free SX-43 with matching R-42 "reproducer" (that's "reproducer", not "speaker")! I wondered who the lucky guy was who was getting this gem, when I glanced up at the address line and noticed it was addressed to me from a co-worker across campus! Holy smoke - did I see that right ?!?!?

Well, I drove my car over and picked up the unit. It had been on a table at a garage sale and there were no takers so it was going to be put in a dumpster, when my buddy (a fellow ham) spotted it and saved it from going to the local land-fill. He has even less room in his shack than I do so he thought I should have it.

Well, I rate the 2 boxes as 9's. Very good shape. (Also had the manuals as well as a SW-54 manual in the folder). I tested the tubes and 3 were bad. Fortunately I had replacements. I opened it up and first saw that the AC line bypass cap was split open (from age, not from electrical failure) so I snipped that out. Next I turned it on and it played, at least on the broadcast band. Next I tried the FM band and there was a lot of distortion. Back to the AM band, which was also now distorted. I checked bias on the 6V6 and found +30 volts on the cathode. Sure enough, the audio coupling cap was pretty leaky, supplying positive voltage to the 6V6 grid. A replacement cured the distortion, except now I had motorboating. I turned it off and replaced all the paper tubular caps as well as the power supply electrolytic cap. Still motorboated and the audio level was real low.

Placing a finger alongside the coupling cap to the 6V6 grid stopped the motorboating and the level came up to normal. Connecting a 10:1 scope probe to the 6V6 grid also stopped the problem. Connecting the scope to the 6V6 plate revealed an oscillation in the output stage at about 100 kHz at a level of 20V P-P. The only way I could cure this was to place a small cap (I used 700pf) between the 6V6 grid and ground. Has anyone else ever run across this?

I then went thru the alignment procedure and the results are:

(1) tracking on the FM band is very poor - I always wind up with about a 1.5 MHz error at one end of the dial, no matter how many times I go back and forth between the high and low end osc adjustments. In fact, I run out of adjustment with no decrease in the tracking error - any ideas ?

(2) Sensitivity on all bands is S-9 or better on the meter (100uv applied) except band 4 it is only about S-3. On this band, the slug in S21 is ready to come out of the coil and signal is still increasing very

slightly so something appears a bit wrong there.  
Has anyone else run across this?

A couple of observations - Interesting design - I wonder why they used a 6AL5 for the FM detector and a 6H6 for the AM detector (why didn't they use the same tube type for both)? Also, I believe the 6BA6 is a lousy choice for a RF amplifier. Wonder why they didn't use something like a 6AK5.....

I don't know how much difference it makes in the the number of re-tries during alignment, but I was always taught to align the bottom of the dial first (low frequency end, usually a slug or series padder cap), then align the top end trimmers. The procedure in the manual is the opposite.

The good news is that it snowed here and I can't finish raking the leaves in my yard so I can spend all weekend playing with the new BA! Anyone else have any comments on the SX-43 - i would be happy to hear from you.

73 de Bob, K9EUI (broehrig@admin.aurora.edu)

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: bill@texan.frco.com (William Hawkins)  
Subject: Tek 535 problem  
Message-ID: <9511112051.AA03258@texan.frco.com>

Started to restore a 535. After a thorough washing and drying (the dew point is 2 deg F today), I was delighted to get a bright blue-white spot, with no double peak. No sweep, though. Voltage checks showed -150 right on, 100 at 70, 225 at 205, 350 at 290, and 500 at 390. Looking at the current in the resistors in series with each bridge, the 100 volt current is 3 times normal, and the rest are nominal. Bridge voltages are nominal, each with a few volts of AC ripple.

So, put the VOM (Tripplet 630NA) on X100 and measure resistance to ground. The 100 volt line showed 200 ohms! (either polarity) There's no easy way to isolate circuits in a Tek (or even to locate them - did Sams ever do a pictorial layout?), but you can pull the plugin. That removed the 200 ohm load. OK, try another plugin - same thing, maybe 250 ohms. Now try the resistance to ground of pin 10 on the plugins - it's high, definitely not 200 ohms, nor is it that low to any other pin in the connector.

It appears to be a fault in the female connector, but I can't

get it to happen unless I plug in a unit. Those Amphenol connectors are well built. Is this a reasonable place to find that kind of fault? Have I done something dumb in the isolation process?

Bill Hawkins bill@bvc.frco.com 612 895-2085 Minneapolis, MN USA

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: Tek 535 problem  
Message-ID: <199511120025.SAA04377@zoom.bga.com>

As William Hawkins said

>  
> Started to restore a 535. After a thorough washing and drying  
> (the dew point is 2 deg F today), I was delighted to get a bright  
> blue-white spot, with no double peak. No sweep, though. Voltage  
> checks showed -150 right on, 100 at 70, 225 at 205, 350 at 290,  
> and 500 at 390. Looking at the current in the resistors in series  
> with each bridge, the 100 volt current is 3 times normal, and the  
> rest are nominal. Bridge voltages are nominal, each with a few  
> volts of AC ripple.

>  
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> pull the plugin. That removed the 200 ohm load. OK, try another  
> plugin - same thing, maybe 250 ohms. Now try the resistance to  
> ground of pin 10 on the plugins - it's high, definitely not 200  
> ohms, nor is it that low to any other pin in the connector.

>  
You've got bitten by a secret known only to Tek wizards. 50\$ or a 75A4 will get Stan and me to talk.

All letter series plugins and their "1" cousins use a 75 volt 150 ma. DC heater supply. This comes from +100. On the scopes with delaying sweep, it runs through a 12AU6 and 12AL5 on the delaying sweep chassis down to pin 15 on the plug-in. Other scopes use a resistor from +100 to feed this to the plug-in. There's your 200 ohms. Remember that you are looking at a dead cold 150 ma. heater string, and pulling the plug-in opens it. There is a tickler resistor across the relay points and regulator in the +100 circuit so that these tubes get some warmup current during the time delay period.

As you've already noticed, the +100 supply goes everywhere. However,

keep in mind that Tek decoupled the circuits all over the place. Stan may have a better way (he's fixed a lot more sick Tek scopes than I have), but here's a suggestion. Pull the time delay relay out of its socket. Pull one of the tubes in the DC heater string out, to get that load off the tickler resistor. Either the 12AL5 on the delaying sweep chassis or one of the 12AU6's in the plug-in will do. Turn the scope on and start walking down the +100 chains, looking for voltage drop. Watch out for tubes drawing current from the +100 bus, and don't just leave the thing turned on for a long time. Start with the electrolytics in the supply. The usual fault with these is low capacitance, but you could have one that has developed leakage.

So far as "where everything is located" in a Tek scope, it isn't that difficult. The top chassis, behind the main time base controls, has, from front to back, the trigger, sweep gate, sweep, and horizontal amplifier. Further back, under the cover, is the HV oscillator and behind it, the HV supply. The delaying sweep scopes have the trigger and delaying sweep generator on the fold-out chassis, with a voltage comparator. The bottom right chassis has the power supply behind the calibrator. The left lower chassis is the vertical amplifier. There are a ton of markings in there to help you find your way around.

You've said "535" and not "535A." I trust that your scope has had the seleniums replaced with a silicon diode mod kit. Double-check the bridge diodes with your ohmmeter first.

One general comment on Tek power supplies. Both the +100 and -150 supplies have to be operating to get regulation. The 225, 300, and 500 volts supplies are piggybacked on top of the +100, so excess current in one of the higher supplies will show up in the +100. The +325 unregulated to the HV oscillator is the same voltage used to feed the 225 regulator.

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\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: bill@texan.frco.com (William Hawkins)  
Subject: Re: Tek 535 problem  
Message-ID: <9511120104.AA03393@texan.frco.com>

Thank you, Hank. I did find my isolation error by trying the pins on the scope side of the connector, and finding pin 15 connected to the +100. Once I understood the load was normal, I tried the .01 mf

caps across the precision resistors in the voltage regulators. They were all leaky black banded caps. Restored 4 of them from parts in a partial RM561A (that's all there were) and got nominal voltages on all but the +100, which rose to 85 volts. Still no sweep, and now the preamp vertical position won't bring the beam back down on the screen.

Your hint on checking the decoupling resistors should help a lot. Discovering where those decoupling resistors are will be a challenge.

Bill Hawkins

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: Tek 535 problem  
Message-ID: <199511120745.BAA25972@zoom.bga.com>

As William Hawkins said

>  
> Thank you, Hank. I did find my isolation error by trying the pins  
> on the scope side of the connector, and finding pin 15 connected to  
> the +100. Once I understood the load was normal, I tried the .01 mf  
> caps across the precision resistors in the voltage regulators. They  
> were all leaky black banded caps. Restored 4 of them from parts in  
> a partial RM561A (that's all there were) and got nominal voltages on  
> all but the +100, which rose to 85 volts. Still no sweep, and now  
> the preamp vertical position won't bring the beam back down on the  
> screen.

Not surprising. .01 caps go through this place like popcorn in a movie theater. I buy .01 600 volts quantity 100 from Mouser, and it's very nice to be able to reach in the bag and get another .01.

Trying to trouble-shoot anything else with any (or all) of the five power supplies out of regulation is an exercise in futility. Get that fixed and never mind what the rest of the scope isn't doing. Those supplies are like musical instruments in an orchestra playing a Mahler symphony. Lot's of them, they all get to play solos, and one false note screws up the whole thing. Also, don't go tweaking the -150 adjustment without having a very good reason for doing it. Good reasons are replacement of the 5651 or one of the divider resistors in the pot circuit. Tweak that pot, and you've thrown off almost every pot adjustment in the scope. That's one tweak that "if it's working, don't fix it," and "if it isn't working, tweaking won't fix it." My meters aren't traceable to NIST, they are traceable to Tek -150 volt supplies.

On "trace off screen" problems, the four neon indicators generally are correct. With the horizontal (remember that an untriggered sweep is not in the center, but at the left), start by checking the voltage across the CRT horizontal plates. Both plates should be elevated above ground---around 200 volts as I recall. The vertical is the same. 0 volts across the plates will center the spot. If you have one of the four plates grounded either to ground or the power supply, you may still be able to get the trace on screen. As a double-check, both horizontal and vertical are a differential setup, and should wiggle around when you move the positioning controls. On the horizontal, try external horizontal. The spot should center with the position controls near center. If you've got all that, you've got a horizontal amplifier. With a delaying sweep scope, you can try displaying the B sweep as well as the A sweep.

One "gotcha" in the sweep generator is the two neon bulbs across the sweep cathode follower. Those are about 2/3rds of the way back on the sweep deck. When you turn the scope on from dead cold, both will light, and one will go out as the tubes warm up. Dead NE-2 bulbs are a nuisance, but the sweep won't work if the bulb won't light. The sweep generator is nothing but an op amp. Check the voltage across the diodes. If they are both back-biased, the "Miller Integrator" plate should be up at the power supply. If one is forward biased, both should be. One supplies a charging current to the grid of the tube (summing junction) to run the sweep back down, the other is a clamp to prevent the sweep from running below ground. The flip-flop in front of the diodes controls whether the sweep return diode is forward biased or not. The trigger circuits are all digital. You can check who's on first and what's on second with a multimeter.

Vertical imbalance? Pins 1 and 3 of the blue ribbon connector are 100 mv./cm differential sensitivity elevated around 67 volts. Nominally, 0 across them should give you 0 across the deflection plates (differential, both elevated above ground). If you can't get 0 across the input, you've probably got 12AT7 problems in the plug-in. If you've got off-screen trace with 0 volts across the input at the blue ribbon connector, walk down the vertical amplifier to see what's packed up. This is where a TU-7 or a 1M1 test plug-in is nice, because it centers the input for free. Otherwise, if you're close to 0, just cliplead the two pins together. If you're on-screen, but off at one end, you've got tube imbalance, and are going to have to find the imbalanced stage and a pair of tubes that are better-balanced. With the 545 and 545A distributed amplifiers, all the tubes are in parallel, and you have to work from the back, taking each pair out of the circuit by using the 225 volts Tek provided on the test plug-ins on the cathodes. Work back-to-front until you find the imbalanced pair. This is all Simpson meter work. You mentioned the Triplet 630-NA. That actually was Tek's standard meter, and it is a super multimeter.

If you've got Stan's book and read the text he wrote (it's full of good hints), then you know the wires in the harnesses are color coded. However, finding those striped chipmunk caps shouldn't be too hard. Later scopes (after about 1960) used ceramic caps. Get a bag of caps from Mouser, heat up your soldering iron, and have at it. Don't forget to use silver-bearing solder on those ceramic strips. Mouser doesn't have it, but, oddly enough, it is a Radio Shack stock item, in 1-oz chunks.

But I reiterate, fix the power supplies first. You are just wasting your time with any symptoms in the rest of the scope until you have five supplies regulating where they are supposed to.

>  
> Your hint on checking the decoupling resistors should help a lot.  
> Discovering where those decoupling resistors are will be a challenge.  
>  
> Bill Hawkins  
>

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\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
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From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: LBLASKE@aol.com  
Subject: Tom's Globe King 500  
Message-ID: <951111210530\_104160217@mail02.mail.aol.com>

Regarding Tom's (K9TA) Globe King 500 story:

Tom,

Thanks for your interesting post. Where do you find time to refurbish these rigs \*and\* wax eloquently about it on the internet?

I don't think there's an answer to your question regarding the modified/non-modified issue. The expert conversion of your rig by an OT who's probably been pushing up daisies for a long time is a great example. I would consider such a rig just as interesting, if not more interesting than a mint version.

Being a reckless modifier, or being an anal retentive museum curator are both valid ways of spending time on the planet. Our interest in either using or

preserving this stuff will certainly leave more of it around for future generations. Even if we didn't preserve it, future collectors would be pulling rusted hulks out of ancient dumping grounds. They'd find some way to restore or replicate them. A couple blocks from my QTH, some real "boat anchor" fanatics are restoring an old street car boat that had been towed out into the middle of Lake Minnetonka and blown to bits! A group of divers raised the remnants, and after years of work they are now close to launching it.

It's all about art, really. The fact that we trash something, worship it, or modify it will be interesting to historians. My wife and I just returned from Europe where we saw some excellent examples of art and statuary that had been severely modified through time. Among other things, we saw Druidic altars that had crucifixes added and paintings of nude figures that later had clothing added. Many old oil paintings have been expanded and modified during restorations. What's more, this isn't restricted to material objects. Take Christmas, for example. It's a remanufactured version of the pagan Saturnalia festival. Dragging pine trees into the house, yule logs, candles and gift giving had nothing to do with Christianity. The Christian aspect was simply tacked on to a Roman festival, like an S0-239 on a Collins 75S1.

Have you ever heard about Cadillac ranch? I think someone, someday could do a similar work with radios. If you haven't hear about it, Cadillac ranch includes a work of "art" that consists of a large number of vintage Cadillacs in a chronological line with their noses imbedded in concrete. A lot of Cadillac collectors were up in arms about this abuse of vintage autos. The exhibit, however, has gotten a \*huge\* amount of attention and visitors. Who can say if this wasn't a better use for these vehicles?

There was an interesting documentary about this project. I can't remember the specifics, but the "artist" took along a camera crew when he went to purchase the oldest Cadillac (a 1949 model I believe) from the collector who had meticulously restored it. In the film, after the artist presented a large check and shook hands with the original owner, he went back to his car and took out a baseball bat which he used to bash in the entire front of the car. The film shows the shocked horror of the original owner. You'd have thought he was witnessing a murder.

I, for one, wouldn't care to see this scenario repeated -- but such an isolated event causes us to pause and think about a lot of important issues. Not only are we not immortal, but all of our cherished material possessions are also temporal. People, cars and boat anchors won't be around forever. In the case of boat anchors, they'll either be thrown away, allowed to deteriorate, be vaporized by an atomic blast, or be crushed into a submicroscopic speck when the universe collapses on itself. No exceptions!

So, in the final analysis, husband your boat anchors in such a way as to



bring the maximum amount of pleasure to yourself and others according to your own definition. Whatever you do, you'll give participants in future boat anchor lists (or virtual reality mind-melding by then!) something to talk about.

LEE AA0EF LBLASKE@aol.com

P.S. It's not my cup of tea, but I hope you enjoy your hunting trip. Rather than modify a deer with a bullet, I enjoy the unmodified versions that come out of the woods and look into my window!

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>  
Subject: Re: Tom's Globe King 500  
Message-ID: <199511120245.UAA14847@dlep1.itg.ti.com>

At 08:07 PM 11/11/95 -0600, Lee AA0EF wrote:

>

>Have you ever heard about Cadillac ranch? I think someone, someday could do  
>a similar work with radios. If you haven't hear about it, Cadillac ranch  
>includes a work of "art" that consists of a large number of vintage Cadillacs  
>in a chronological line with their noses imbedded in concrete.

Concrete? My recollection is that Stanley Marsh III stuck them nose down in dirt. Who remembers for sure (from real life not from film)?

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995  
From: Kevin J Pease <kevin@mm1001.theporch.com>  
Subject: Re: Tom's Globe King 500  
Message-ID: <Pine.LNX.3.91.951111220703.4305B-100000@mm1001.theporch.com>

Kevin J Pease  
WB0JZG Mt Juliet, TN.  
mm1001.theporch.com

On Sat, 11 Nov 1995, Bill Sorsby wrote:

> At 08:07 PM 11/11/95 -0600, Lee AA0EF wrote:

>

> Concrete? My recollection is that Stanley Marsh III stuck them nose down in  
> dirt. Who remembers for sure (from real life not from film)?

>

I have been to the cadillac ranch. The cars are burried nose down in dirt. The are also completely striped and painted in pastels. The are real junk today. If he actually bought nice restored cars to do that youi wouldn't know it today.

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995

From: Bob Roehrig <broehrig@admin.aurora.edu>

Subject: tube needed

Message-ID: <Pine.ULT.3.91.951112111756.15092D-100000@admin.aurora.edu>

I am looking for a type 1232 tube. This is a loktal type used in the front end of a Zenith console I am restoring. I am unaware of any equivalents, if there are any.

Thanks & 73 de Bob, K9EUI (broehrig@admin.aurora.edu)

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995

From: Sandra L Knepper <slkst29+@pitt.edu>

Subject: Veterans' Day

Message-ID: <Pine.3.89.9511111539.B11051-01000000@unixs3.cis.pitt.edu>

If I may be permitted, on behalf of all boatanchors, I wish to extend my appreciation and gratitude to all those boatanchors reading this post who may have served in the military. Let us pause for just a minute and remember our veterans this Veterans' Day. THANK YOU VETERANS.

Dave, W3BJZ  
former veteran

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995

From: HAMRLUND@aol.com

Subject: Re: Veterans' Day

Message-ID: <951111185444\_104085737@mail02.mail.aol.com>

In a message dated 95-11-11 18:11:33 EST, slkst29+@pitt.edu (Sandra L Knepper) writes:

>If I may be permitted, on behalf of all boatanchors, I wish to extend  
>my appreciation and gratitude to all those boatanchors reading this post  
>who may have served in the military. Let us pause for just a minute and

>remember our veterans this Veterans' Day.    THANK YOU VETERANS.

>

>Dave, W3BJZ

>former veteran

>

>

On behalf of my late father (Robert Sr.) who was stationed at Pearl Harbour, when it all started, and then spent the next 38.5 months in combat, in the South Pacific.

I THANK YOU !

He would have truly appreciated this, as it meant alot to him to have anybody acknowledge Veterans' of any period in time.

I Proudly keep his Medals including his " Pearl Harbour Survivor" medal, awarded to

all those survivors, by an Act of Congress in 1992, close to me. Sadly, out of about 3/4 of a million that were stationed there, only 50 thousand of these were made.

Time, had taken it's toll.

robert fowle

From boatanchors@theporch.com Sun Nov 12 17:49:00 1995

From: "William C. Robbins" <billrobb@serv01.net-link.net>

Subject: WTB: Heath Gear

Message-ID: <199511120035.TAA29813@serv01.net-link.net>

Still looking for older Heath gear. Your trash is my treasure.

73....Bill WA8CDU